



UNITED STATES PATENT AND TRADEMARK OFFICE

Cen

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,523	03/19/2001	Masao Minobe	Q65488	6184
23373 7590 03/06/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER NGUYEN, THONG Q	
			ART UNIT 2872	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/06/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/810,523

Applicant(s)

MINOBE ET AL.

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5, 7-12, 14-33, 36, 37 and 40-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-5, 7-12, 14-33, 36 and 37 is/are allowed.
- 6) ☒ Claim(s) 40-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/6/2006 has been entered.

Response to Amendment

2. The present Office action is made in response to the amendment filed on 12/6/2006. It is noted that in the amendment of 12/6/06, applicant has added a new set of claims, i.e., claims 40-50, into the application.

3. A review of the device and the method as recited in the newly-added claims has resulted that the device and the method of the new claims have the same scope as those of the original claims, and thus all pending claims 3-5, 7-12, 14-33, 36-37 and 40-50 are examined in this Office action. Note that claims 34-35 and 38-39 were canceled in the amendment of 3/24/05; claims 1 and 6 were canceled in the amendment of 8/22/06 and claims 2 and 13 were canceled in the amendment of 9/7/06.

Drawings

4. The drawings contained thirty-eight sheets of figures 1-64 were received on 3/19/2001. The drawings are objected by the examiner for the following reason(s).

Art Unit: 2872

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature related to the arrangement of the illuminating means, the optical converging system, the sample mounting table, the sample, the convergent point, and the objective lens for receiving light reflected from the sample as recited in each of claims 40, 43, 47, 48, 49 and 50 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Applicant should note that all features of the drawings are shown an arrangement of the mentioned optical components for a transmitted microscope wherein light from a light source after focused by the optical converging system on the sample and the light transmitted from the sample is guided to the objective lens which is disposed after the convergent point. The figures do not show an arrangement of the mentioned optical components for a reflected microscope. In other words, the arrangement of the objective lens after the convergent point for receiving light reflected from the sample is not shown in at least one figure.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

Art Unit: 2872

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 40-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 40 is rejected under 35 USC 112, second paragraph because it is unclear about the structure of the illuminating means, the table supporting a sample and the objective lens as claimed. ***In particular, it is unclear how the illuminating light beam is able to converge at the same point in a space when the illuminating light passes through the sample and when the illuminating light does not pass through the sample. Applicant should note that the illuminating light is converged at a point in a space (see lines 2-3 of the claim) without passing through a sample. When a sample is placed in the illuminating light path, the illuminating light incidents onto the sample***

and thus the illuminating light will not converge into the mentioned converged point in a space. In other words, the presence of the sample in the illuminating light will change the position of light after it passes through the sample due to the thickness and the optical characteristics of the sample. The feature thereof "said illumination light...said converging point" recited on lines 6-7 makes the claim indefinite because it is unclear about the structure of the illuminating means, the table supporting a sample and the objective as claimed.

b) Each of claims 43, 47, 48, 49 and 50 is rejected under 35 USC 112, second paragraph for the similar reason as set forth in element a) above.

c) The remaining claims are dependent upon the rejected base claims and thus inherit the deficiencies thereof.

Allowable Subject Matter

8. Claims 3-5, 7-12, 14-33 and 36-37 allowed.

9. Claims 40-50 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

10. The following is an examiner's statement of reasons for allowance:

a) The device as claimed in each of independent claims 3, 14, 18, 26, 32, 33, 36 and 37 is patentable with respect to the prior art, in particular, the U.S. Patent Nos. 5,305,139 and 5,684,626 by the limitations related to the phase plate or the spatial filter or the polarization disposed at a position of a diffraction image plane, and the objective lens is adapted to be focused on either one of the diffraction

image plane and the sample. It is noted that while the use of an illuminating system having optics for focusing illuminating light onto a converging point, a sample disposed between the illuminating system and the converging point, and an objective lens disposed after the converging point is disclosed in the mentioned Patents; however, the cited Patents do not disclose the feature related to the phase plate or the spatial filter disposed at a position of a diffraction image plane which is orthogonal to the optical axis of the illuminating light and includes a converging point for selectively blocking a part of the illuminating light transmitted through a sample or to change the polarization features of the light beam on the sample, and the objective lens is adapted to be focused on either one of the diffraction image plane and the sample.

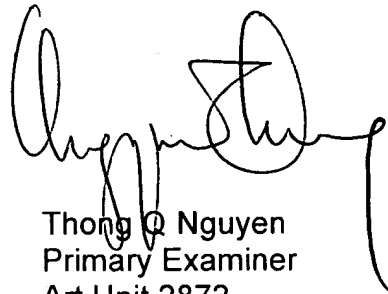
Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thong Q. Nguyen
Primary Examiner
Art Unit 2872
